| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/643,235 | 08/22/2000 | Stephen J. Ensley | 00271.0002.00US00 | 8856 |

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| EXAMINER |
|---|
| BATES, KEVIN T |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2155 | 5 |

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 09/643,235 | ENSLEY ET AL. |
| | Examiner | Art Unit |
| | Kevin Bates | 2155 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)☒ Responsive to communication(s) filed on _30 January 2004_.
2a)☒ This action is **FINAL.**    2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)☒ Claim(s) _1-40_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☒ Claim(s) _25-29_ is/are allowed.
6)☒ Claim(s) _1-14,17-24 and 30-40_ is/are rejected.
7)☒ Claim(s) _15 and 16_ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All  b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

## DETAILED ACTION

This Office Action is in response to a communication made on January 30, 2004.

Claims 1-40 are pending in this action.

### *Response to Amendment*

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 19, 20, 21, 22, 30, 31, 32, 33, 35,**

**36, 37, 38, 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Bondi**

**(5,710,885) (Applicants IDS).**

Regarding claim 1, Bondi discloses a method of querying computers connected

to a distributed network (Column 3, lines 35 – 38), said method comprising the steps of:

providing a range of addresses to be queried (Column 7, lines 28 - 32), said range

being defined by a beginning address and an ending address (Column 7, lines 37 – 39);

selecting an address to be queried from the range of addresses (Column 7, lines 36 –

45); transmitting a request to the selected address; creating a response record

associated with the selected address in a response output file (Column 7, lines 46 – 47),

said response record comprising the selected address (Column 4, lines 58 – 62);

incrementing the address to be queried according to a predefined order; and repeating

said steps of transmitting a request, creating a response record, and incrementing the

address until every address in the range of addresses has been queried (Column 7,

lines 36 – 47); and initiating a process that examines content at a least a first address

from which a reply is received  (Column 4, lines 58 – 63) where the content is the

information about the node.

Regarding claim 2, Bondi discloses that the distributed network is the Internet

(Column 1, line 13).

Regarding claim 3, Bondi discloses the step of providing a range of addresses to

be queried comprises inputting a beginning address (inputted in the form of a cache list,

Column 6, lines 47 – 50) only and wherein the ending address is automatically chosen

(Column 7, lines 6 – 23).

Regarding claim 4, Bondi discloses that the selected address is the beginning

address (Column 7, lines 37 – 39) because the address is selected from a queue that

starts from the beginning address.

Regarding claim 6, Bondi discloses that the step of creating a response record

comprises: creating a positive response record associated with the selected address in

a positive response output file if a reply is received from the selected address in

response to the request (Column 4, lines 62 - 63), said positive response record

comprising the selected address (Column 4, lines 58 – 62); and creating a negative

response record associated with the selected address in a negative response output file

if no reply is received from the selected address in response to the request (Column 6,

lines 40 – 46), said negative response record comprising the selected address (Column

4, lines 58 – 62).

Regarding claim 7, Bondi discloses the positive response output file is a table in a database (Column 4, lines 62 – 63).

Regarding claim 8, Bondi discloses the negative response output file is a table in a database (Column 6, lines 40 – 46).

Regarding claim 9, Bondi discloses the positive response output file (Column 4, lines 62 – 63) and the negative response output file (Column 6, lines 40 – 46) each comprise tables in a single database (IP topology database).

Regarding claim 10, Bondi discloses the positive response output file is in a format selected from the group consisting of a text file, a Hypertext Markup Language file, a comma separated values file, a **database file**, a spreadsheet file, and a PDF file (Column 4, line 66 – Column 5, line 7).

Regarding claim 11, Bondi discloses the negative response output file is in a format selected from the group consisting of a text file, a Hypertext Markup Language file, a comma separated values file, **a database file**, a spreadsheet file, and a PDF file (Column 4, line 66 – Column 5, line 7).

Regarding claim 12, Bondi discloses excluding a specified address from the range of addresses to be searched (Column 7, lines 32 – 35).

Regarding claim 13, Bondi discloses excluding a specified set of addresses from the range of addresses to be searched (Column 7, lines 32 – 35).

Regarding claim 14, Bondi discloses that the range of addresses to be queried is a range of Internet Protocol ("IP") addresses and wherein the selected address is an IP address (Column 6, lines 13 – 14).

Regarding claim 18, Bondi discloses the steps of: temporarily halting the querying of computers through operator intervention prior to completion (Column 7, lines 6 – 22 and Column 6, lines 53 - 55, where the ping transmission control rate can be adjusted to be minimum or even zero to meet the demands of the network); and resuming the querying of computers through operator intervention at the selected address where the process was temporarily halted (Column 7, lines 6 – 22 and Column 7, lines 36 – 38, the polling works as a queue so the next node to poll will stay on top of the queue).

Regarding claim 19, Bondi discloses selecting a second address from the negative response output file; transmitting a second request to the selected second address (Column 7, line 64 – Column 8, line 6); creating a positive response record associated with the selected second address in the positive response output file if a reply is received from the selected second address in response to the second request (Column 7, lines 46 – 47), said positive response record comprising the selected second address (Column 4, lines 58 – 62); removing the negative response record associated with the selected second address from the negative response output file if a reply is received from the selected second address in response to the second request (Column 7, lines 60 – 62); incrementing the address to be queried; and repeating said steps of selecting a second address, transmitting a second request, creating a positive response record, removing the negative response record, and incrementing the address until every address in the negative response output file has been queried (Column 7,

line 64 – Column 8, line 6) because the polling process makes use of a transmission queue.

Regarding claims 20 – 22, Bondi discloses a ping count (Column 7, line 64 – Column 8, line 6) that allows each node to be selected up to any number of times including three and four times, each time following the same process as listed in the rejection to claim 19 and where pinging and sending a request are essentially the same (Column 6, lines 47 – 50).

Regarding claim 30, Bondi discloses a method of searching server computers connected to a distributed network, said method comprising the steps of: selecting a first IP address from a negative response file (Column 7, line 64 – Column 8, line 6), said negative response file comprising IP addresses of server computers that have failed to respond to a network service request (the unacknowledged poll table Column 5, line 67 – Column 6, line 6); transmitting a first request to the selected first IP address (Column 7, line 64 – Column 8, line 6); creating a positive response record associated with the selected first IP address in a positive response file if a reply is received from the selected first IP address in response to the first request (Column 7, lines 46 – 47), said positive response record comprising the selected first IP address (Column 4, lines 58 – 62); removing the selected first IP address from the negative response file if a reply is received from the selected first IP address in response to the first request (Column 7, lines 60 – 62); and repeating said steps of selecting a first IP address, transmitting a first request, creating a positive response record associated with the selected first IP address, and removing the selected first IP address until every IP address in the

negative response output file has been searched (Column 7, line 64 – Column 8, line 6)

because the polling process makes use of a transmission queue; wherein if a reply is

received from the selected first IP address in response to the first request, content at

the selected first IP address is scheduled to be examined based on the positive

response record associated with the selected first IP address created in the positive

response file (Column 4, lines 58 – 63) where the content is the information about the

node.

Regarding claims 31 – 33, Bondi discloses a ping count (Column 7, line 64 –

Column 8, line 6) that allows each node to be selected up to any number of times

including two and three times, each time following the same process as listed in the

rejection to claim 19 and where pinging and sending a request are essentially the same

(Column 6, lines 47 – 50).

Regarding claim 35, Bondi discloses the positive response output file is a table in

a database (Column 4, lines 62 – 63).

Regarding claim 36, Bondi discloses the negative response output file is a table

in a database (Column 6, lines 40 – 46).

Regarding claim 37, Bondi discloses the positive response output file (Column 4,

lines 62 – 63) and the negative response output file (Column 6, lines 40 – 46) each

comprise tables in a single database (IP topology database).

Regarding claim 38, Bondi discloses the positive response output file is in a

format selected from the group consisting of a text file, a Hypertext Markup Language

file, a comma separated values file, a **database file**, a spreadsheet file, and a PDF file

(Column 4, line 66 – Column 5, line 7).

Regarding claim 39, Bondi discloses the negative response output file is in a

format selected from the group consisting of a text file, a Hypertext Markup Language

file, a comma separated values file, **a database file**, a spreadsheet file, and a PDF file

(Column 4, line 66 – Column 5, line 7).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 5, 24, 34, and 40 are rejected under 35 U.S.C. 103(a) as being**

**unpatentable over Bondi in view of Schettler (5,787,252) (Applicants IDS).**

Regarding claims 5 and 34, Bondi does not explicitly indicated that the request is

one of a Hypertext Transfer Protocol ("HTTP") request, a Hypertext Transfer Protocol

Secure ("HTTPS") request, a File Transfer Protocol ("FTP") request, a Simple Mail

Transfer Protocol ("SMTP") request, a Network News Transfer Protocol ("NNTP")

request, a User Datagram Protocol ("UDP") request, and an Internet Chat Relay ("IRC")

request. Schettler teaches a system of network discovery and management that uses

UDP as part of its ability to monitor the network (Column 4, lines 63 – 66) and as a

method of transferring SMNP messages. It would have been obvious to one of ordinary

skill in the art at the time the invention was made to include the UDP protocol, a popular

industry standard protocol, as taught by Schettler in Bondi because the use of UDP requires much less overhead (Column 1, lines 37 – 42).

Regarding claims 24 and 40, Bondi does not explicitly mention the step of: filtering addresses listed in the response output file for content based upon user-specified criteria. Schettler teaches a system of network discovery and management that filters addresses listed in the response output file for content based upon user-specified criteria (Column 6, lines 48 – 60). It would have been obvious to one or ordinary skill in the art at the time the invention was made to use Schettler's teaching of a network display on Bondi's network monitoring system in order to provide the user of the network manager an easy and simple implementation of the manager's tasks and enhanced performance (Column 2, line 60 – Column 3, line 15).

**Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bondi in view of Arrowood (5,101,348) (Applicants IDS).**

Regarding claim 23, Bondi discloses the idea of searching a range of addresses in tandem (Column 2, lines 55 – 62), but does not explicity mention using a plurality of computers remotely to do so. Arrowood teaches a method of using a plurality of computers to pool network devices in order to obtain a network device layout (Column 3, lines 3 – 10). It would have been obvious to one or ordinary skill at the time the invention was made to use Arrowood's teaching of a distributed process of discovering the network device layout on Bondi's system of network monitoring to make the process more practical for larger network systems (Column 1, line 51 – Column 2, line 7).

**Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bondi in view of Humblet (5,671,357).** Bondi does not explicitly mention that steps of transmitting a request, creating a response record, and incrementing the address are repeated only for a predetermined time, said method further comprising the step of: discontinuing said step of repeating said steps of transmitting a request, creating a response record, and incrementing the address once the predetermined time has elapsed, regardless of whether every address in the range of addresses has been queried. Humblet teaches that a network node discovery program should discontinue once the predetermined time has elapsed, regardless of whether every IP address in the range of IP addresses has been queried (Column 2, lines 6 – 22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Humblet's teaching of discontinuing the node discovery process in Liu's computer query process in order to prevent redundant updates, freeing up resources in the network (Column 1, lines 40 – 45).

### *Allowable Subject Matter*

Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 25-29 are allowed.

### *Response to Arguments*

Applicant's arguments filed January 30, 2004 have been fully considered but they are not persuasive.

Regarding claims 1 and 30, the applicant argues that the system disclosed in Bondi does not examine the content available at the first address, which a reply is received. The examiner believes that Bondi does disclose this limitation because as long as Bondi's system looks at some information received from or contained in the node then it is examining the content of the node and in Column 4, lines 58 – 63, Bondi discloses examining the type of node and the number of interfaces and other details of the node which can be considered content of the node. The applicant also argues that the reference, Bondi does not disclose providing a range of addresses and incrementing through those addresses. The examiner believes that Bondi covers these limitations because he discloses receiving a plurality of addresses which can be perceived as a range in Column 7, lines 28 – 30 and that a queue goes from one address to another thus incrementing through every address in the range, in Column 7, lines 36 – 39.

Regarding claims 24 and 40, the applicant argues that Bondi in combination with Schettler does not disclose that the responses are filtered based on the content of the node. The examiner believes that the combination does disclose this limitation because in Schettler Column 6, lines 48 – 60, the system filters based on the objects, which contain information about each of the nodes pooled. These objects contain information about the node and received from the node thus can be considered content of the node.

Regarding claim 23, the applicant argues that Bondi in combination with Arrowood fail to disclose the limitation that the addresses are searched in tandem. The

examiner believes that the combination does disclose this limitation because Bondi

discloses that many addresses can be polled together and await a response thus

searching in tandem, this can better be seen in Column 5, line 65 – Column 6, line 9.

Regarding claim 17, the applicant argues that Bondi in combination with Humblet

does not disclose the limitation of discontinuing the process even if all the addresses

have no been queried.  The examiner believes that the combination does cover the

limitation and it can be better seen in Humblet Column 2, lines 13 – 15, which discloses

that the update gets restarted after time T1, but it does not care whether the pervious

update finished, it just signals the start of a new period, so all pervious updates are

stopped after the timer finishes and can be further seen in Column 2, lines 59 – 65 that

the system does not worry about whether the operation is done or not, it just signals that

it is time to start the network update all over again.

### Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U. S. Patent No. 5835720 issued to Nelson because it has node discovery using

IP address.

U. S. Patent No. 6101528 issued to Butt because it has node discovery and

examines the contents of the server after discovery.

U. S. Patent No. 6292838 issued to Nelson because it has node discovery based

on IP address incrementing.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kevin Bates whose telephone number is (703) 605-

0633. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain Alam can be reached on (703) 308-6662. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system.  Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

*KB*

KB
April 14, 2004

**HOSAIN ALAM**
**SUPERVISORY PATENT EXAMINER**